

The Builder.

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UCH of our readers as attempt—
stern in the pursuit of know-
ledge—to master the "Second
Report from the Select Com-
mittee on Ventilation and
Lighting of the House [of Commons];
together with the Proceedings of the Com-
mittee, Minutes of Evidence, Appendix, and
Index," will find it a tough job. It fills 670
pages, the greater part of it, as, humbly, it
seemeth to us, the merest verbiage and
twaddle that ever nation had to pay for
printing. Lots of sack, and only a "ha'porth"
of bread. If it were not for the look of the
thing, we should be disposed to paraphrase
Colton's arithmetical apophthegm concerning
Shakespeare and modern dramatists, and say,—
subtract from the big book all that is to be
found in *The Builder*, and—rubbish remains.
Modest, we are forced to admit, but true
nevertheless,—“true as touch,” as Spenser has
it. On one point nearly all the witnesses,
with the exception of those that might be
depended on, are agreed, and that is the want
of the first necessary and condition for life in
the new House of Commons. Mr. Gurney
finds “the atmosphere of the House in a desic-
cated and ferruginous state, and subject to
constant disturbance from initial and retro-
grade currents passing in all directions, ap-
parently at random and without control, pro-
ducing direct draughts in particular parts of
the House and oppression in others.” Mem-
bers of the House gave evidence that they
always expected a head-ache when they were
going into it, and were never disappointed.
Mr. Leslie considers that “drawing air down
long open brickwork shafts, pulling it by
means of powerful steam-engines along damp,
dirty cellars and vaults, moistening it, causing
it to pass over heated iron surfaces, tempering,
moistening, and equalising it, destroys all the
original freshness and purity of the air, and
forms a most deteriorated mechanical mixture,
combining dust and other impurities, which,
apart from other considerations, produce an
atmosphere most injurious to the health and
comfort of those who are compelled to breathe
it.” Mr. Price undertakes to say, that the air, be-
fore it reaches the House of Commons, is ren-
dered unfit for respiration by the contamination
it meets with as it travels from the towers into
the House. Mr. Denkes thinks that the
system adopted is bad, because it is “opposed
to the natural principles of ventilation, forcing
the air contrary to its natural movement, and
requiring the constant application of powerful
machinery to obtain results that may be ob-
tained by allowing the air to take its natural
course.” And together the last two witnesses
depose that the supply of air “is insufficient in
quantity,” the temperature “irregular and con-
flicting,” and the quality of the air “so inferior,
as to be unfit for respiration!”

The inquiry further proves, what is useful
to be known, that we are still floundering in
ignorance of this subject, and that opinions
diametrically opposite, and in some cases dan-

gerous to deadliness, are entertained by men
who have the confidence of large numbers of
persons.

The committee were evidently posed. They
worked hard: some of them put pertinent
questions, and tried to get at principles; but
with small results, and the consequence is a
report which leaves the real question very
nearly where it was, excepting by negation.
The report says,—

“Your committee are of opinion that the con-
dition of the ventilation of the House of Commons
and its appendages is still unsatisfactory, notwith-
standing the improvement which has been effected
in the House itself since the period when the com-
mittee were appointed.

“Much of the inconvenience in regard to ven-
tilation has arisen from the want of a proper under-
standing between Sir C. Barry and Dr. Reid, to
whom the superintendence of different parts of the
building has been confided; and the committee are
of opinion, that for the future, divided responsi-
bility should be avoided, and that the ventilation of
the House of Parliament should be placed in the
charge of one person only.”

As to the system,—

“The plan of forcing air into a building by me-
chanical power, to produce what is called plenum
or plus ventilation, combined with the extracting
powers of a shaft with furnace or steam jet to effect
what is termed vacuum ventilation, with ascending
and descending currents for the supply of fresh air
and the abstraction of vitiated air, is, in the opinion
of your committee, a complicated system, and one
which they are not prepared to approve.

“The results used for the purpose of transmitting
the air to the House of Commons are liable to be
affected by damp and impurities arising from bad
drainage; and unless this evil be effectually reme-
died these results ought not to be used as air chan-
nels.

“The air is deteriorated at times by over heating,
which it experiences when in contact with the iron
pipes, heated, some by steam, others by hot water,
contributing to produce the disagreeable taste and
smell which has been complained of. This distur-
bance of the wholesome condition of the atmos-
phere renders complicated manipulation necessary
to restore the balance, an operation attempted in
both the systems adopted in the New Palace, and,
in the opinion of your committee, without success.”

They find that—

“One of the causes of defective ventilation in
the House of Commons is the want of a sufficient
area of openings at the floor of the House, and the
necessity which thence has arisen for admitting the
air through the interstices of the carpet. This
operation, it is found, causes the dust to rise with
the ascending current of air, and produces grave
inconveniences. Your committee is, therefore, of
opinion that the openings for the admission of air
at or near the floor of the House should be so
enlarged as not to require any portion of the air to
be drawn through the fibres of the carpet, which
never can be free from dust and other impurities.”

But still they are able to say that the “com-
mittee desire to give it as their opinion that
the failure of ventilation of the House of Com-
mons, at the commencement of the session,
cannot fairly be imputed to any radical defect
in Dr. Reid's system, because the House was
hastily occupied, with an infinity of arrange-
ments incomplete; and the lighting, from
which the greatest amount of mischief arose,
was neither contrived by Dr. Reid nor under
his control.”

They are of opinion that much improvement
would be effected by an enlargement of the
openings, both for the supply and discharge of
air; but the only recommendation that they
make, “in the present conflicting state of
opinion,” is, as regards future management,
that “the entire responsibility of ventilating
and lighting the house, and its appendages,
should be confided to one competent person,
under the direction and supervision of the
Board of Works; and with a view to secure
proper attention to any complaints that may
hereafter arise, a committee should be named,

at the commencement of each session, to
confer with the Board of Works upon any
measures that may appear necessary to remove
such complaints.”

Of our own opinion of the costly and com-
plicated machinery introduced at the new
House to fight in some cases against nature,
and with no chance of success, our readers are
aware.

One of the most scientific of the witnesses,
Mr. Gurney, actually got so near common
notions on one occasion as to suggest, that
opening the windows would let in and let out
a considerable quantity of air, should it be
wanted! And when Mr. Henry Hope then
naturally asked: “May we from your evidence
draw the conclusion, that after having laid out
200,000*l.* on ventilating the House, no better
plan is to be devised than that of opening
the windows?” The witness replied: “You
can devise plans, and you may change the
system: the question before us, I take it, is one
applicable to the present state of the building.
I say, it is not worth while to interfere with the
system as we find it: I would not, to alter the
system of ventilation, go to a great expense,
and upset the building: I would be content to
introduce the means at hand, which appear to
me self-evident would get rid of those evils
which temporarily obtain, and which may only
occasionally be felt.”

As to that portion of the system, whether
applied by Sir Charles Barry or Dr. Reid,
which attempts to bring in the supply of pure
air from the ceiling, we are forced to regard it
as a dangerous error. It astonished us to find
Dr. Arnott countenancing it by assenting to
the assertion that good ventilation may be
obtained by the introduction of cold air from
the top, and the egress of vitiated air through the
floor. “It has the advantage, he said, of blowing
down the dust; but there is the disadvantage
of the unequal descent of the pure air.”

To this Lord Palmerston sensibly observed,
—“Let us see whether there would not be
other inconveniences attending that system.
The air which is breathed by persons sitting
in the House of Commons who sit near the
floor, is heavier by its specific gravity, but
lighter in consequence of the increase of
temperature which it receives when it quits the
human body: this bad air is constantly rising
by its temporary rarefaction. At the same
moment, you have a stratum of air, naturally
lighter, but heavier by its temperature, de-
scending. These two currents meet in some
portion of the building, and that bad air
which has been breathed must, sooner or later,
be brought back again to the mouths of the
persons who have already breathed it, before
it can pass through the apertures of the floor;
whereas, if the egress of the air were at the
ceiling, that air, having once quitted the
mouths of the persons who had exhaled it,
never would return to them, but would be
carried off, and they would receive a constant
supply of purer air from the apertures in the
lower part of the building. Would not that
be so?” The reply was,—“Your Lordship
has expressed, only in better words, one of
the reasons which I gave for preferring the
ascent of the air from below to the other
mode. Yet the difficulty referred to may be
in great part overcome by increasing the
amount and speed of the pure downward
current.”

The Doctor did not venture to approve of